IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

RED ROCK ANALYTICS, LLC,	§	
	§	
Plaintiff,	§	
	§	No. 2:17-CV-00101-RWS-RSP
v.	§	
	§	
SAMSUNG ELECTRONICS CO. LTD. ET AL,	§	
	§	
	§	
Defendants.	§	

MEMORANDUM ORDER

Plaintiff Red Rock Analytics, LLC ("Red Rock") alleges that Defendants Samsung Electronics Co. Ltd., Samsung Electronics America, Inc., Samsung Semiconductor, Inc., and Samsung Austin Semiconductor, LLC ("Samsung") infringe U.S. Pat. No. 7,346,313. Compl. [Dkt. #1] at ¶¶ 10–16. Samsung presented Dr. Keith R. Ugone as a damages expert. *See* Ugone Rebuttal Rep. at 2. Red Rock contends that Ugone's opinions within his report are unsupported and unreliable and therefore seeks to exclude certain opinions by Ugone under Rule 702 of the Federal Rules of Evidence. Pl.'s Mot. [Dkt. #150].[1] After consideration, Red Rock's Motion is DENIED and the Court will not exclude any portion of Ugone's Report at this time.

Red Rock provided Roy Weinstein as a damages expert and Christopher Jones as a technology expert. *See generally* Weinstein Rep. [Dkt. #162-3]; Jones Rep. [Dkt. #150-4]. Samsung has also provided Sayfe Kiaei as a technology expert. *See generally* Kiaei Rep. [Dkt. #150-6]. The '313 Patent is related to I/Q gain imbalance calibration. '313 Patent, at [54]. Jones asserts that the calibration may improve the transmit signal accuracy, which in turn improves the

[1] Samsung has also filed its Response [Dkt. #162], Red Rock has filed its Reply [Dkt. #170], and Samsung has filed its Sur-Reply [Dkt. #182].

performance of wireless communications devices. Jones Rep. at ¶¶ 440–42. Jones also asserts that transmit signal accuracy can be quantified by measuring a change in error vector magnitude ("EVM"). *Id*. at ¶¶ 443–47.

The IEEE 802.11n and IEEE 802.11ac standards provide modulation and coding scheme ("MCS") rates that specify the modulation and coding rate to be used. *Id*. at ¶ 486. Red Rock provides the following table as an illustration:

MCS	Modulation	Coding Rate	Data Rate (Mb/s)	Tx EVM (dB)	Rx Sensitivity (dBm)
0	BPSK	1/2	6.5	-5	-82
1	QPSK	1/2	13.0	-10	-79
2	QPSK	3/4	19.5	-13	-77
3	16-QAM	1/2	26.0	-16	-74
4	16-QAM	3/4	39.0	-19	-70
5	64-QAM	2/3	52.0	-22	-66
6	64-QAM	3/4	58.5	-25	-65
7	64-QAM	5/6	72.2	-28	-64

Pl.'s Mot. at 5. Red Rock suggests that as the EVM values in column 5 move to larger negative numbers (i.e., from -13 to -16), this indicates even stricter requirements. *Id*. Thus, as the MCS rates in column 1 increase (i.e. from 3 to 4), the EVM requirements increase and get stricter in column 5. Red Rock contends that the I/Q gain imbalance calibration of the patented invention improves the EVM significantly so that it can meet the stricter EVM requirements at higher MCS rates. *Id*.

In forming his opinions, Weinstein relies upon the opinions of Jones. Weinstein ultimately attempts to provide the value of the '313 Patent by taking the known value of the '069 Patent and multiplying an appropriate percentage to the value. The Red Rock experts proceeded through several steps to calculate what they consider to be an appropriate percentage.

First, Jones provides two metrics, which he calls a conservative metric and a standard metric, to estimate the number of MCS rates that the '313 Patent enables for both of the IEEE

802.11n and 802.11ac standards. *Id*. Jones estimates the number of MCS rates that the '313 technology enables for a standard and divides that number by the total number of MCS rates for the given standard to calculate a percentage. Weinstein Rep. at ¶ 183. For example, for the 802.11n standard, Jones' conservative metric estimates that one of eight MCS rates are enabled by the '313 Patent. *Id*. Treating each MCS rate equally, Jones converts this into a percentage of 12.5%. *Id*. Jones also provided an 802.11n "standard metric" of 37.5%, an 802.11ac "conservative metric" of 20%, and an 802.11ac "standard metric" of 50%. *Id*.

Second, Weinstein takes the percentages from first step to provide a new percentage. Weinstein first calculates a conservative percentage by averaging the metrics for the 802.11n standard, which he claims is a lower performance specification. *Id*. at ¶ 185. Weinstein therefore provides a conservative estimate of 25% by averaging 12.5% and 37.5%. *Id*. Weinstein also provides another standard estimate of 30%, which is the average of the four percentages provided in the first step by Jones. *Id*. at ¶ 186.

Third and finally, Weinstein multiplies the conservative estimate percentage of 25% to the known value of the '069 Patent to calculate a conservative estimate for the value of the '313 Patent. *Id*. at ¶ 185. Weinstein also multiplies the standard estimate percentage of 30% to the known value of the '069 Patent to calculate a standard estimate for the value of the '313 Patent. *Id*. at ¶ 186.

Weinstein's report explicitly states that "this approach is still conservative given that the EVM improvement resulting from implementing the '313 patent's I/Q calibration technique would improve throughput across all MCS rates." *Id*.

Red Rock files this Motion asserting that Ugone misunderstood Jones' and Weinstein's positions as to when infringement occurs. Pl.'s Mot. at 2. Ugone's understanding was that infringement occurred only when the accused products use higher MCS rates that are allegedly

enabled by the patented technology. Jones and Weinstein take the position that the accused products infringe at all MCS rates, but their damages calculation is based on the number of higher MCS rates that are enabled. Samsung admits that Ugone's understanding stated above is incorrect. *See* Defs.' Resp. at 1 (acknowledging Ugone's "misunderstanding that the lower-speed MCS data rates set out under the 802.11n and 802.11ac standards do not infringe. . . ."). Samsung represents that Ugone will not ascribe the claimed infringement to only the highest MCS rates.

Red Rock seeks to exclude five portions of Ugone's analysis, claiming that Ugone's analysis is unreliable based on Ugone's misunderstanding: subsections II.C.1.a.i, II.C.2.d, X.D, XIV.B, and XIV.D. However, despite Ugone's misunderstanding, each of these sections possess adequate support for Ugone's opinions that are unaffected by his misunderstanding. Accordingly, the Court will not exclude any portion of the report. However, Ugone is precluded from asserting that Plaintiff claims infringement does not occur at lower MCS rates.

SIGNED this 21st day of February, 2019.

ROY S. PAYNE
UNITED STATES MAGISTRATE JUDGE